

# A Snapshot of the Development of Anti- Tobacco Messages for Aboriginal and Torres Strait Islander Communities – Report from an Australian National Survey

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Aboriginal Artwork from Mungabareena Aboriginal Corporation and Women's Health Goulburn North East. Making Two Worlds Work. 2008; Available from: <http://www.whealth.com.au/mtww/>

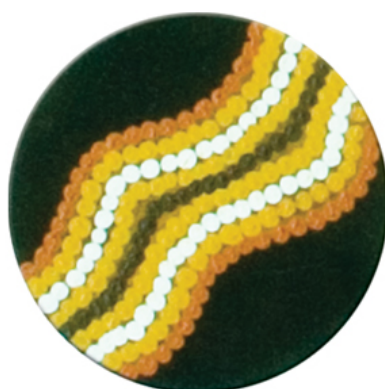
*‘We need a different message for Indigenous people’*

Dr Tom Calma AO  
National Coordinator for  
Tackling Indigenous Smoking

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## 1. Plain English Summary

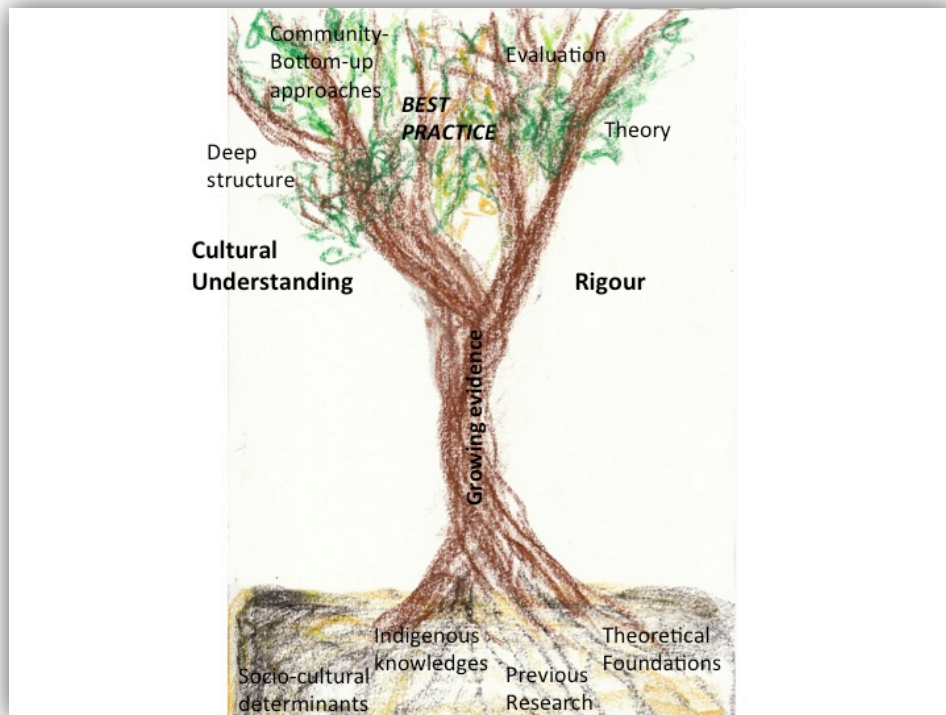
It's 2009, and I am applying for funding for a comprehensive smoking cessation program aimed at local Aboriginal communities. I find there are few places to get guidance on how to target anti-tobacco messages for this population. This sparks my interest...and leads to my enrolment in a PhD aimed to answer the question 'how to develop salient messages for Indigenous tobacco control?'

Presented here is a unique study about how organisations across Australia are developing anti-tobacco messages for Aboriginal and Torres Strait Islander communities. As principal researcher, I interviewed 47 people from 44 different organisations about their organisation's programs. All states were represented in the study except for Tasmania, and the organisations were located in urban, rural and remote areas. Twenty-two Aboriginal Medical Services (AMSs), 13 Government Organisations (GOs), four Universities and eight non-government organisations (NGOs) participated.

The survey questionnaire was developed for this study from several theoretical frameworks and previous papers on Aboriginal Health Promotion.

The analysis reveals some interesting findings, and confirms the hypothesis that different organisation types are approaching the development of their anti-tobacco programs in different ways.

The analysis reveals two significant dimensions to how messages and programs are currently being developed in Australia. The first I term "cultural understanding". This relates to anti-tobacco programs being developed with a community-orientated, bottom-up approach and using deeper cultural values to inform message development. This also includes the use of 'pretests' to check back with community whether messages are suitable. The other dimension relates to programs being informed by health promotion theories and being evaluated – this I term "rigour". Figure 1 represents these two dimensions as a tree with two trunks that together are "growing evidence".



Drawn by Gillian Gould

### Figure 1. The tree with two trunks

*Dimensions of “Cultural Understanding” and “Rigour” are depicted as two main trunks of a tree, each of which spread out into the relevant branches or factors which make up how anti-tobacco messages are being developed in Australia. Best practice is a combination of cultural understanding and rigour in the area where the branches and foliage of the two trunks overlap. Together these aspects help in growing evidence. Under the earth where the tree is rooted are the unseen factors nourishing the approaches visible above.*

The analysis further reveals the dimension “cultural understanding” to be a strength of the organisations who normally serve the Aboriginal and Torres Strait Islander populations such as Aboriginal Medical Services, and the dimension “rigour” to be a strength of the organisations usually orientated to the general population such as government organisations, NGOs and Universities.

A few organisations, from all of the groups, are using both “cultural understanding” and “rigour”. I propose therefore that both these dimensions are of importance and the use of these two factors combined may represent “best practice”.

Half of the organisations interviewed expressed some cultural challenges in the development of their anti-tobacco messages. These are grouped into three themes:

- Diversity of Aboriginal and Torres Strait Islander cultures
- Choice of Role models
- Conflicts and delays that potentially affected the progress of programs

As different organisations have different strengths and capacities, the report recommends that consideration is given to respectful partnerships and synergistic action with organisations from different sectors. However community-based bottom-up approaches (empowerment models) should be maintained throughout. Those



organisations early in the development of their programs are encouraged to consider evaluating them to ascertain whether their goals are being reached.

This report makes reference to the American Cancer Society's Global Dialogue Toolkit for guidance on how evaluation for anti-tobacco campaigns can be achieved. Suggestions are also made in the report for how cultural challenges could be pre-empted.

This study is timely to inform and guide best practice in the area of Indigenous Tobacco Control and anti-tobacco health promotion programs. In the absence of completed studies, I present here a model of how organisations can move forwards towards achieving smoke-free outcomes for Aboriginal and Torres Strait Islander communities.

See Box 9 on page 40 for a summary of recommendations.





## 2. Scientific Abstract

### Background

Smoking prevalence remains high in Aboriginal and Torres Strait Islander Peoples. Indigenous peoples in countries colonised by Western nations prefer culturally-targeted anti-tobacco messages, yet only recently have messages been tailored for Australian Aboriginal and Torres Strait Islander Peoples. We conducted a national survey to determine how messages are being developed for Indigenous tobacco control.

### Method

Forty-seven telephone interviews were conducted with 44 of 53 eligible organisations. Twenty-two Aboriginal Medical Services (AMSs), 13 Government Organisations (GOs), four Universities and eight non-government organisations (NGOs) participated. Questions included targeting and theoretical approaches, community consultation, messages types and design, campaign types, cultural challenges, recommended actions, resources developed, pre-tests and evaluation.

### Findings

Responses were scored according to core components, and message features. Total scores (mean  $10.9 \pm \text{SD } 2.7$ ) were not associated with organisation type. A community-orientated, bottom-up approach was popular (47%), 55% used a theoretical framework, 87% used a positive benefit appeal; 38% used threat messages, 72% conducted a pre-test and 53% evaluated programs. Cultural sensitivity for message development was divided into superficial (images, language, demographics) and deep structure (socio-cultural). AMSs were significantly more likely to report using more deep structures in message tailoring than NGOs ( $p < .05$ ) and GOs ( $p < 0.05$ ). A non-linear principal component analysis revealed two dimensions accounting for 53% of the variation in findings. These dimensions were called “cultural understanding” and “rigour”. Over 50% of the organisations had experienced cultural challenges in message development included issues raised due to the diversity of Aboriginal and/or Torres Strait Islander cultures for example with the use of Indigenous artwork, language, and stereotypes. Conflicts and delays caused some issues with program management; and the choice and use of role models was sometimes problematic.

### Conclusion

Features associated with successful anti-tobacco campaigns are reported by organisations Australia-wide for Aboriginal and Torres Strait Islander communities. This study has provided new insight into the current development of anti-tobacco messages in Australia by coupling the use of both cultural understanding and rigour to enable the growth of evidence based practice. Ideally tailoring should include theoretical, behavioural and cultural aspects with Indigenous advisors, to effect cessation. Superficial structures assist message ‘fit’. Deep structures, significantly used by AMSs, are centrally processed and influence message salience. We recommend refinement of evaluation, pre-empting cultural challenges, and synergy by partnerships to achieve the goal of closing the gap on Indigenous health caused by tobacco smoking.

### 3. Background

#### Introduction

Tobacco is the main preventable risk factor contributing to the burden of disease in Aboriginal and Torres Strait Islander Peoples <sup>1</sup>. The prevalence of smoking remains unacceptably high in Aboriginal and Torres Strait Islander communities in Australia at 45% compared to 16.6% for the general population <sup>2</sup>. Smoking rates are slow to decline in Aboriginal and Torres Strait Islander Peoples. This contrasts with the steady downward trend in smoking prevalence in the general Australian population, which has been attributed to tobacco control measures such as price increases and smoke-free policies, including the National Tobacco Campaigns <sup>3</sup>. Effective interventions for the general population may widen the gap in health disparities for those who are disadvantaged <sup>4</sup>.

Aboriginal and Torres Strait Islander Peoples have many factors that contribute to their continued use of tobacco such as historical use<sup>5</sup>, the effect of colonisation <sup>6</sup>, community norms <sup>7</sup>, and multiple disadvantages including structural, socio-economic, and health inequalities <sup>8</sup>. Aboriginal and Torres Strait Islander Peoples belong to very diverse communities with many different cultural and language groups, living across all states. English is not necessarily their first or even second language. All Australians should ideally be exposed to the same policies and laws, however there are barriers to adequate implementation in some Aboriginal and Torres Strait Islander and remote communities<sup>9</sup>. There are reported inequities in access to health care and treatment for Aboriginal and Torres Strait Islander Peoples who smoke <sup>9</sup>. It is problematic to isolate individual components of these challenges.

Disseminating anti-tobacco messages remains a valid and important strategy to influence the prevalence of smoking through the media or via health promotion and public health programmes and persuasive health messages <sup>10</sup>. Mass media campaigns internationally have been shown to be effective independent of price and policy changes<sup>11</sup>. Inadequate campaign reach could contribute to lower effectiveness<sup>11</sup>. There is limited research into mass media programs for Aboriginal and Torres Strait Islander Peoples with little consistency of approach, and local conditions need to be taken into account <sup>12-14</sup>.

#### Need for this Study

It is not yet known however what anti-smoking messages would be the most effective for Aboriginal and Torres Strait Islander Peoples, and how media content could be developed or adapted to diverse subgroups <sup>11</sup>, or the best way to disseminate messages for Aboriginal and/or Torres Strait Islander populations. Previous note has been made about a lack of coordinated approaches for Indigenous tobacco control in Australia, with the use of ineffective strategies, inconsistent and fragmented anti-tobacco messages that are divorced from local conditions <sup>15</sup>.

No best practice guidelines are available yet to specifically guide Indigenous tobacco control <sup>16 17</sup>. Several guides are available for Indigenous health promotion in general <sup>18-20</sup>. Resources are available on how to set up a tobacco project for Australian Aboriginal and/or Torres Strait Islander communities from the Centre for Excellence in Indigenous Tobacco Control <sup>21</sup> and the Aboriginal Health & Medical Research Council <sup>22</sup>.

A systematic review on anti-tobacco media messages across several Indigenous populations revealed only 10 papers that described the formative part of anti-tobacco message development and these lacked detail<sup>12</sup>. Only one such paper was Australian. The review indicated that mass media programs have been found to be effective and are preferred by Indigenous peoples<sup>12</sup>. Other Australian reviews revealed four published studies on anti-tobacco interventions for Aboriginal and Torres Strait Islander Peoples in 2003<sup>23</sup>, another 7 papers in 2009<sup>24</sup>, and 4 in a recent review<sup>25</sup>. Not all of these described how the anti-tobacco messages had been developed. Previous reviews of anti-tobacco resources for Aboriginal and Torres Strait Islander Peoples have been documented but none as far as we know included details of the developmental phases of message production<sup>15,26</sup>.

In 2011 the National Tobacco Campaign, for the first time developed a TV advertisement targeting Aboriginal and Torres Strait Islander Peoples with the aim to halve the prevalence of Indigenous smoking by 2018<sup>14</sup>. This 'Breaking the Chain' advertisement was based on market research emphasising the importance of family, the benefits of quitting, the financial, health and social costs of smoking, and using Aboriginal people, artwork and images<sup>27</sup>. Australian 'closing the gap' strategies are also aiming for a decreasing Indigenous smoking prevalence<sup>28</sup>. There has been a welcome upsurge in anti-tobacco programs funded for Aboriginal and Torres Strait Islander Peoples, with many local tobacco control programs now being run in Aboriginal and Torres Strait Islander communities<sup>29</sup>.

It is unknown how these organisations are developing their anti-tobacco messages, many of which include media elements and the innovative use of social media<sup>30</sup>. Health communication research has shown that highly emotive messages, often negative health effects campaigns<sup>11</sup>, (but other emotions are also important<sup>31</sup>) are more likely to be effective in anti-tobacco media campaigns<sup>10, 32</sup> but it is unknown whether high emotion-based messages are used by locally-developed programs or whether message construction has been informed by health communication and behaviour change theories.

As there is such limited evidence or guidelines for how to develop anti-tobacco messages for the Aboriginal and Torres Strait Islander target groups, we believe it is necessary to get an accurate picture of how Indigenous tobacco control is being developed in order to move effectively forward.

### **Aim of the study**

We aimed in this study to determine current practices used in the development of tobacco control messages (in particular media based messages) by Indigenous and non-Indigenous organisations in Australia providing anti-tobacco programs for Aboriginal and Torres Strait Islander Peoples. We surveyed how messages are developed, designed, tested and evaluated. It was hypothesised there may be differences in the ways messages are being developed according to organisational type. It is predicted that there would be a diverse range methodologies used to develop such messages, however commonalities and differences would be shown. This study aimed to fill an important knowledge gap in the way messages and accompanying resources are being produced and disseminated. Analysis of the data gained from the survey will enable us to contribute towards making future recommendations for best practice.

## 4. Methodology

### Theoretical Foundations

Health promotion encompasses multi-level strategies and behaviour change is only one of many approaches <sup>33</sup>. There are many behaviour change and communication theories that can inform message development. Several theories have similar underlying principles. To guide the formulation of the survey instrument in this study we examined several frameworks and theories. The Ottawa Charter for Health Promotion recommends health messages are sensitive and respectful of the cultural needs of diverse populations <sup>34</sup>. Targeting messages to a specific sector of the population is a common strategy used in advertising in general <sup>32</sup>. In health promotion targeted strategies for behaviour change are common. There is no agreed definition of targeting, but Kreuter and Skinner <sup>35</sup> proposed the following: “the development of a single intervention approach for a defined population subgroup that takes into account characteristics shared by the subgroup’s members.”

Targeting has been used with minority populations such as socially disadvantaged and ethnic minorities, and on the basis of culture. There is discourse on how to make interventions culturally appropriate or sensitive. Resnicow proposes approaches that can involve superficial and deep structures <sup>36</sup>. Kreuter et al propose five strategies <sup>37</sup>: peripheral, evidential, linguistic, constituent-involving, and sociocultural. These categories can be useful to understand or analyse how messages or resources can be made culturally appropriate, and thus suitably targeted.

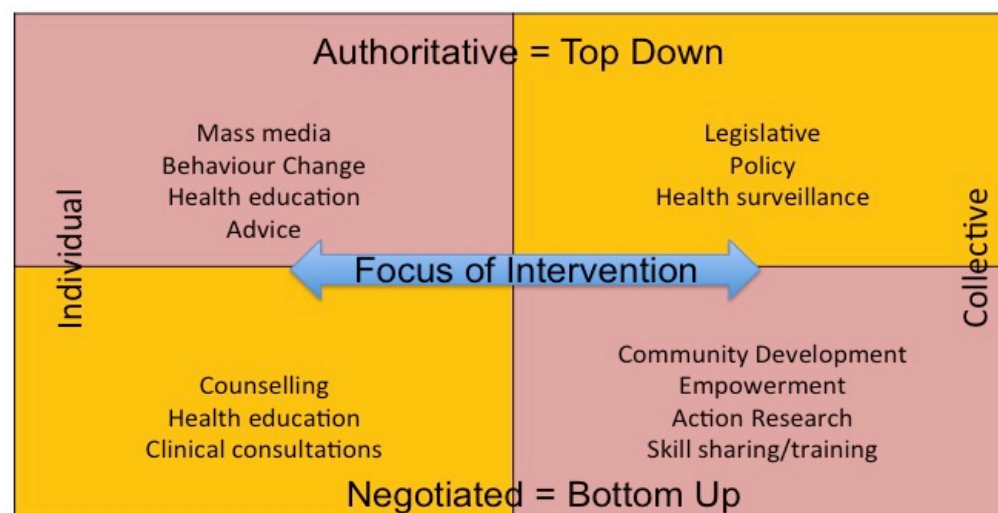
From health communication research the study is guided by Witte's work on how to make a persuasive health message <sup>38</sup>. The persuasive health message framework provides several categories for consideration when making an effective health message, such as attitudes and salient beliefs of the target groups and recommended cues such as source. The framework brings together elements from several other health promotion frameworks into a comprehensive checklist of items. Thus it provides a structure for assessing how messages may have been developed, phases of message development and delivery.

In Table 1 we propose correspondences between Resnicow's and Kreuter's theories and Witte's Persuasive Health Message Framework.

**Table 1: Correspondences between theories that inform cultural tailoring of health messages**

Resnicow (2000)	Kreuter (2003)	Persuasive Health Framework (Witte 2001)
Superficial structure	Peripheral	Cues – source & message variables Psychographics
	Linguistic	Vividness
	Evidential	Demographics
Deep structure	Constituent-involving	Community consultation
	Sociocultural	Values Salient beliefs (attitudes) Salient referents (norms) Customs

Beattie's Health Promotion Model <sup>39</sup> is a cross-classification taken from social theory, and is used here as a guide to discover whether the health messages are being made from a top-down approach (authoritative) or bottom-up approach (negotiated), and if they are being aimed mainly at the individual in the community, or collectively (Figure 2).



**Figure 2: Beattie's Health Promotion Model**

(Adapted from Beattie A. *Knowledge and control in health promotion: a test case for social policy and social theory*. *The Sociology of the Health Service*: Taylor & Francis e-library; 2003)

There is very little research to guide how resources are being targeted for Aboriginal and Torres Strait Islander Peoples. However three publications have recommended approaches and the survey additionally incorporated these factors <sup>17, 27, 40</sup>.

### Methodology

To meet the purpose of the study both quantitative and qualitative data were collected to provide multiple standpoints, including the process undertaken by each organisation, which we anticipated could be quite unique <sup>41</sup>. By interviewing one participant from each organisation it is acknowledged that a degree of intersubjectivity would be present <sup>42</sup>, compared to obtaining data from published works which may have been peer-reviewed. In view of the limited published research on the topic however we sought functional knowledge to guide future pragmatic considerations and open up opportunities for transferability <sup>42</sup>.





## 5. Methods

The research project was a cross-sectional survey of a wide range of organisations Australia-wide who are involved in the development of health promotional messages for tobacco control with Aboriginal and Torres Strait Islander Peoples. The organisations included Aboriginal Medical Services, Universities/Research Institutions, Divisions of General Practice/Medicare Locals, Area, State or Federal Health Services/Departments, government and non-government organisations, urban, rural and remote.

Ethics approval was from JCU Aboriginal and Torres Strait Islander Human Research Ethics Committee approval number 4466.

### Recruitment

Contact was made with 105 relevant organisations whose programs were listed on websites such as Australian Indigenous Health Info-net and Centre for Excellence in Indigenous Tobacco Control (CEITC), organisations that received funding from the Indigenous Tobacco Control Initiative and the Tackling Indigenous Smoking Program, State and Federal initiatives and others know to investigators. Initial contact where possible was made by personal telephone call, or alternately by email, and materials were sent out to provide study details via the information sheet, the questionnaire, and consent form. During this contact or email correspondence eligibility was assessed as below (Box 1). Participants were allowed ample time to obtain consent from their managers, CEO or Board if required. Interviews were arranged at the participant's convenience and were rescheduled at short notice if required.

#### Box 1: Eligibility for the study

Organisations were included if they were able to be:

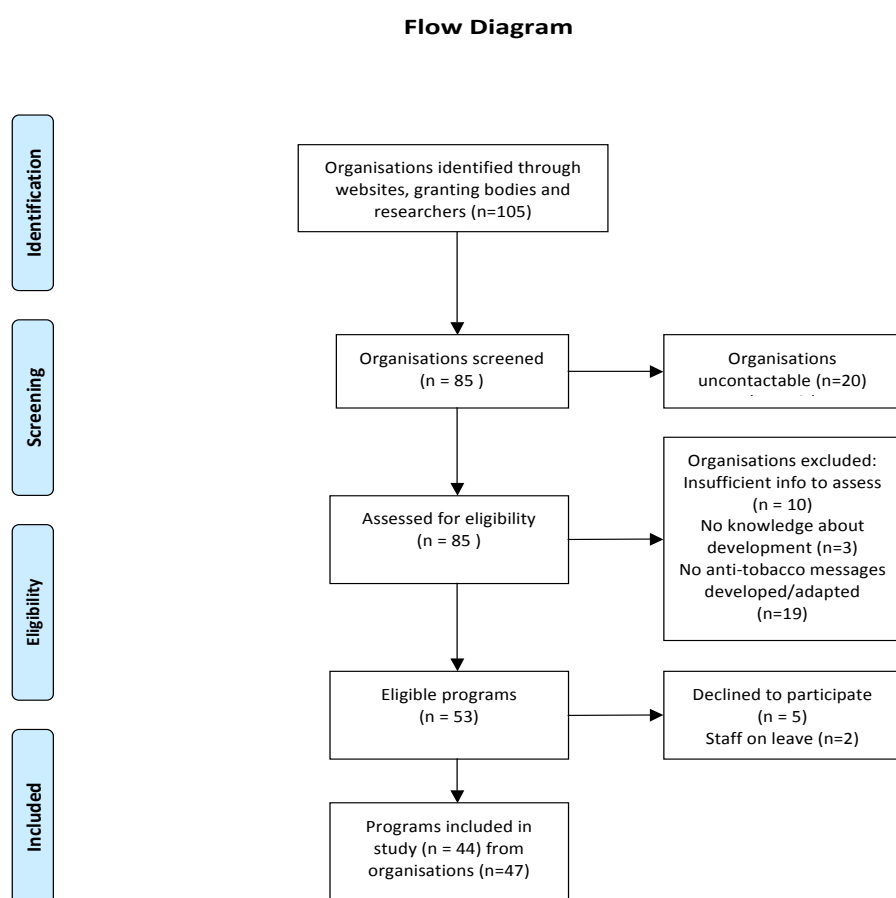
- Assessed as having developed (or adapted) anti-tobacco messages for Indigenous tobacco control, and
- Had someone available who could talk about this development

Organisations using other peoples' resources, without amendment or adaptation, were excluded, as were those who had no one who knew the history of the development.

### Participants

Figure 2 illustrates the selection of the programs and organisations for the study.

**Figure 2: Flow diagram of selection of organisations and programs**



*From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-*

Forty-seven interviews were held (concerning 47 programs) with 44 organisations (see Box 2) from September 2012 to May 2013. The response rate was 83% (44/53) of eligible organisations. Ten programs were in NSW, 8 in Queensland, 5 in Victoria, 7 in NT (although one of these organisations was located in Queensland), 5 were in S Australia, 8 in W Australia, 4 in the ACT, and none from Tasmania.

## Box 2. Organisations involved in the interviews

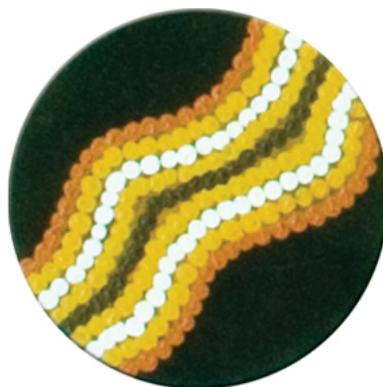
The 47 interviews were with:

- Four Universities
- Twenty-one Aboriginal Community Controlled Health Services (including one Aboriginal Peak Body), (one with 2 programs)
- One Division of General Practice/Medicare Local (had 2 programs)
- Eight Public Hospitals and Area Health Services
- Four Government Departments (one with 2 programs)
- Six NGO's

## Survey Instruments

An initial community consultation process tested suitability, readability acceptability and feasibility of the survey instrument and sought advice as to whether important factors or questions had been omitted from an Indigenous perspective. The community consultation was with Aboriginal Health Workers and Indigenous Allied Health staff: four staff from Mental Health and ATODS, Queensland Health and three staff (one non-Indigenous manager) from the Mid North Coast Division of General Practice, in NSW. Suggestions were made to simplify or clarify questions on the survey instrument, and emendations were approved by the HREC.

The questions were mostly closed and quantitative except were more detailed description of process was required by a response to open-ended questions. The questionnaire covered the following topics (Box 3, and see appendix for questionnaire).



### Box 3: Topics covered in the questionnaire

- Target groups
- Use of existing or newly made messages
- Use of messages as part of health promotion program or stand alone
- Participants were asked to rate the degree to which a bottom-up vs. top-down approach was used and rate to what degree the messages were aimed at individuals vs. community (Beattie's model)
- Method of anti-tobacco message development
- Theoretical frameworks used
- How messages were designed to be culturally appropriate
- Use of personnel such as Indigenous artists, Aboriginal and other health professionals/health promotion advisors/experts and process of community consultation
- Type of messages i.e. educational, threat, positive benefit, advocacy or other; recommended actions in messages, and referral options
- Pre-tests of target groups and how conducted; cultural challenges and unexpected outcomes
- Consultation re resources
- Types of resources developed
- Resource distribution
- How messages/resources were evaluated
- What evaluations were conducted e.g. changes of knowledge/attitudes/behaviours; quit rates; smoke-free spaces; others

### Procedure

The questionnaire was administered by telephone interviews by the first author (a non-Indigenous GP who has been involved in many years with developing local Aboriginal smoking cessation programs in NSW). The answers were loaded in real time onto an on-line secure survey site, made available by Southern Cross University. Informed consent was taken over the phone and any queries answered, and interviews were recorded with permission. The interviewer explained also that the research was part of her PhD. During the interview participants were encouraged to follow along with the emailed questionnaire as a prompt if they wished. Respondents were additionally asked to provide samples of resources using anti-tobacco messages for analysis and research reports, if they were able to do so.

### Analysis

Responses were scored according to core components, and message features as follows in Box 4:

#### Box 4: Scoring of responses

1. For each core screening question of the following seven stages one point was given:
  - a. Use of theory
  - b. Community consultation
  - c. Aboriginal personnel in message development
  - d. Action recommended
  - e. Resources developed from messages
  - f. Pretest
  - g. Evaluation
2. Bonus points were allocated for the following (maximum 2 points per category):
  - a. Exploration of Target group
  - b. Features of messages incorporated
  - c. Types of actions recommended
  - d. Changes evaluated
3. The two scores were totaled and reported out of a maximum of 15.

Descriptive analyses summarised and described the data. Organisation types were categorised for analysis into four groups as follows:

1. Aboriginal Community Controlled Health Services or Aboriginal peak body (n=22) – called AMS
2. Hospital, public health or government (n=13) – called GO
3. Universities/ Research (n=4) – called Uni
4. Divisions GP/Medicare Local/NGO's/ + 1 self-employed (n=8) – called NGO

Where cells counts were too small for analysis, organisations were classified according to their orientation for Aboriginal and Torres Strait Islander Peoples or the general population, and/or AMSs versus 'other' organisations.

Participants were asked about incorporation of 16 possible features into message development (yes/no). These features were recoded as either superficial or deep structure for analysis. Superficial structure included: access (e.g. legible print, font, reading age), local languages, use of slang, the 'look' or design of the message, and the use of demographic data perceived by the respondents to be pertinent to the target group. Deep structure included Indigenous cultural beliefs, holistic wellbeing, family messages, story-telling, Indigenous role models and community Elders. The number of superficial features (out of a possible 11) and the number of deep features (out of a possible 5) reported by the organisations were recorded. 'Supplementary Box' in Appendix gives full details of recoding of variables.

Data were analysed with SPSS version 20, using non-parametric tests and non-linear categorical principal component analysis (CATPCA)<sup>a</sup>. Qualitative descriptions underwent thematic analysis from notes taken during the interviews in response to the open-ended questions, and when 'other' was selected as a response. Two researchers (GG and LS) independently coded a proportion of the qualitative responses to develop an agreed

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<sup>a</sup> CATPCA is a form of non-linear principal component analysis that allows for the inclusion of categorical

process, and then independently checked the remainder. The codes were sorted into themes and the two researchers came to a consensus about themes through discussion.

## 6. Findings

Participants were asked to give an overview of their programs. The anti-tobacco messages were reported as mostly developed for mass media or social marketing such as TV, radio, and other media, and/or part of a program that included health worker training, education programs, and individual or group cessation programs. Most organisations emphasised a commitment to creating messages that identified with the target group. Some programs adapted ideas from other programs and tailored them to their local area/state. The arts (painting, film, craft) were used in several programs as a way to connect with the target group or to create anti-tobacco messages. If considering the Health Promotion Framework<sup>43</sup> the majority of the programs utilised the messages for focused 'disease prevention' approaches, 'communication strategies' and 'health education and empowerment'. Six programs had an upstream focus on policy or infrastructure.

### Organisation type and scores

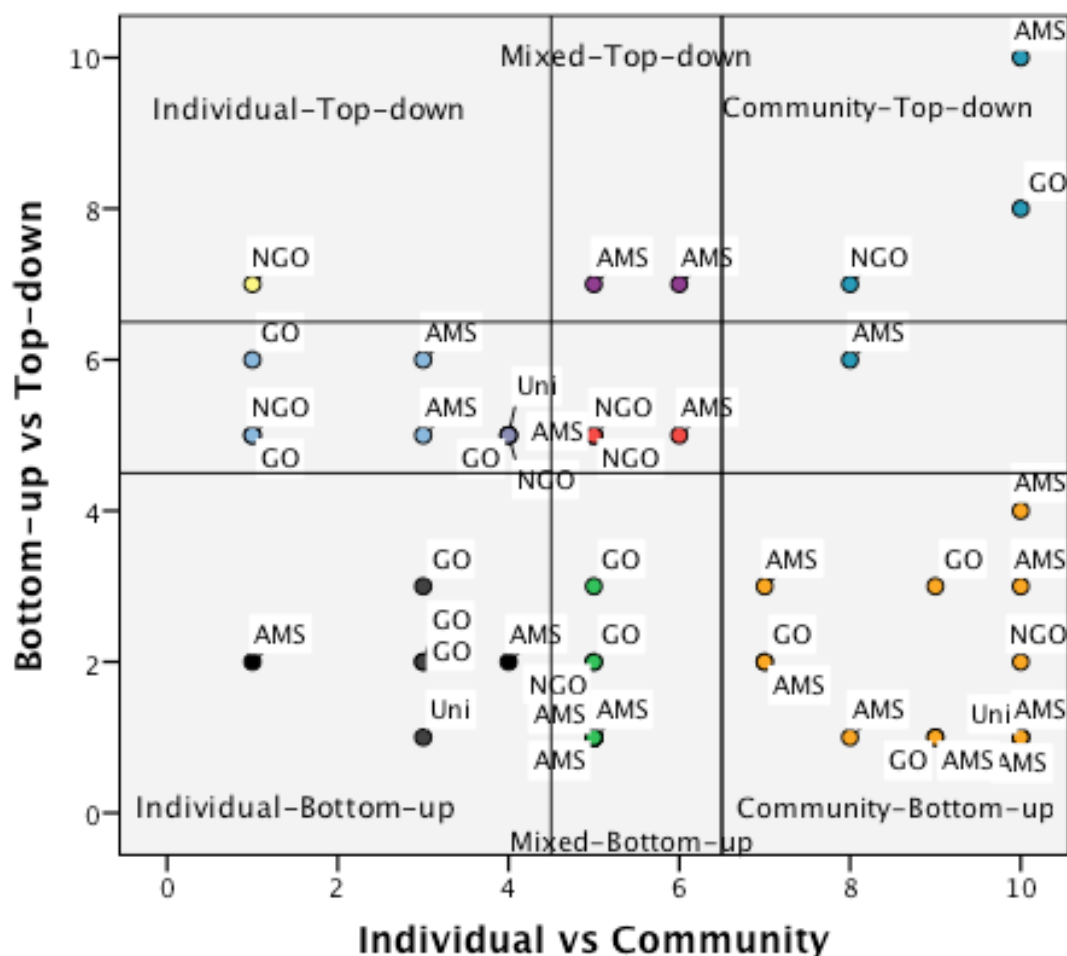
Table 2 (in appendix) gives results from the main variables expressed in the percentages of organisation type divided into four organisational categories. AMSs made up the largest group (47%, n=22), followed by Government Organisations (GOs) (28%, n=13), Non-Government Organisations (NGOs) (17%, n=8), and Universities (Unis) (8%, n=4). As can be seen from Table 2, some 'other' organisations classified themselves as mainly for Aboriginal and/or Torres Strait Islanders from the GO and NGO category, and one AMS stated it was for the general population.

The organisations were from all areas, but predominantly regional (43%, n=20), (Table 2). Overall scores calculated as above, (mean 10.9  $\pm$ SD 2.7) were not associated with organisation type using a non-parametric Kruskal-Wallis test.

### Beattie's Model of Health Promotion analysis

Figure 3 shows a plot of the ratings given by the participants when they estimated the degree to which their organisation had used a bottom-up versus top-down approach (y axis), and an individual versus community approach (x axis). Quadrants were divided up as per Beattie's Health Promotion Model, but allowed for central sectors when participants estimated ratings of 5 or 6 on either dimension (designated as a mixed approach). The majority of organisations (60%, n=28) a bottom-up approach. Sixty eight percent (n=32) of organisations used a mixed or community based approach. Thirty two percent (n=15) of organisations favoured a more individual focus, which would traditionally contain individual counselling and therapy. Community-Bottom up was the largest single grouping of 47% (n=22) (includes those designating a community approach mixed with individual). This is traditionally called an empowerment or community development (participatory) model<sup>39</sup>. The most infrequently used approach was individual-top-down, with only 1 organisation.





**Figure 3: Scatter-plot of ratings of bottom-up vs. top-down and individual vs. community approaches**

The y-axis denotes the continuum between a top-down (authoritative) and bottom-up (negotiated) approach. Quadrants were divided up as per Beattie's Health Promotion Model (Figure 2), but allowing for additional central sectors. The x-axis denoted a spectrum of an individual versus a collective focus for messages. Ratings of 5 or 6 were nominated when a mixed/combined approach was used.

Legend: AMS = Aboriginal Medical Service; GO = government organisation; NGO = non-government organisation; Uni = University

### Target Groups

The percentages of specific groups targeted by organisations are in Table 2. The largest target group was youth (64%, n=30) followed by pregnant women (55%, n=26), about half targeted adults, and a smaller percentage targeted elders (32%, n=15). More Aboriginal Medical Services (AMSs) targeted youth ( $p<0.005$ ) than the 'other' organisations, when combined. Other target groups described were mostly 'Aboriginal and/or Torres Strait Islanders of all ages' or 'the whole community' (n=20), children (n=7), health workers, health professionals or Aboriginal Medical Services (n=8), families or partners or households (n=11) and people with chronic diseases (n=2). More Aboriginal Medical Services (AMSs) targeted youth ( $p=0.005$ ) than other types of

organisations combined. Almost half of the organisations tailored their messages for different subgroups if they were targeting more than one.

## Theory

Theoretical frameworks were reported to be used by 55% (n=36) of organisations, with some citing more than one theory. The most frequently reported framework was the stages of change/trans-theoretical model (46%, n=12) but many qualified this as 'loosely based'. This was followed by the use of smoking cessation or other guidelines (27%, n=7). Five used a social learning/ecological model; five cited participatory/community development models and five post-colonial/Indigenous protocols. Four mentioned the Ottawa charter/a public health model. The reported use of theoretical frameworks were not significant when comparing organisations usually serving the Aboriginal and Torres Strait Islander population to organisations serving the general population.

## Types of Messages

Table 2 shows the predominance of messages reported to be used by each organisation type. AMSs and GOs used mostly positive benefit appeals and advocacy messages (such as protecting children through smoke-free homes and cars), NGOs and Universities favoured educational messages; all the Universities used positive benefit and NGOs also prioritised advocacy. Threat or fear-based messages were used by just over a third (38%). There was frequently a perception that threat appeals were unsuitable for Aboriginal and Torres Strait Islander Peoples. Conversely, community Elders in some areas had called for highly confronting messages. A few of those interviewed said they did not use threat appeals but when they described their messages they appeared to be quite hard-hitting. Other messages were described such as promoting community responsibility and supporting others to not smoke, financial issues, preventative messages about not initiating or refusing to smoke, smoke-free spaces, legislation or policies, and the use of real stories or testimonials. There were no statistically significant differences in the types of message used by different organisations.

## Community Consultation

Ninety-six percent of organisations reported consulting with the community to help develop their messages. All messages had Aboriginal and/or Torres Strait Islander individuals or groups influencing the messages to various degrees. Some organisations had comprehensive community collaboration strategies while others provided Aboriginal and/or Torres Strait Islander groups some influence at the nearly finished stage. Community focus groups were frequently reported (56%), as were steering committees/reference groups (62%), informal discussion groups and word-of-mouth accounted for 49% each. Surveys were used by a third, and a few used single gender focus groups. Often in-house Aboriginal and/or Torres Strait Islander health staff were consulted, and community Elders.

The type of information explored was most frequently knowledge, attitudes, beliefs and community norms about smoking (>70%). Over 60% explored the ability of the target to respond to the messages or the barriers to responding. The preferred sources of the messages were explored such as an Indigenous theme (>70%), preferred source/message form (>50%), preferred channel (40%). A wide variety of other factors were explored, which highlights the unique approaches of different programs (such as people's quit journeys, experiences with initiating smoking, and the use of other forms of tobacco.)

## Message Development Phase

Organisations generally reported collaborating with two to four separate groups in an iterative action-research type process from initiating the message development through to approval. Most processes firstly gathered information from the community to inform the development of the messages, then worked further with the community to actually develop the key messages, before requiring professional support from either media/Indigenous agencies, or input/approval from the steering committee/CEO of the organisation. Once the ideas were established and refined the messages were sometimes taken back again to community for testing.

The majority of the organisations (85%) said they used the input from their community to help develop the actual messages, 65% used results from surveys or focus groups, 57% used expert advice or a literature review. 40% developed their messages from other campaigns, nearly always with cultural/local adaptation. 85% used AHWs in helping them develop the messages or slogans, 55% used community Elders or a community representative, 45% used an Indigenous artist, 40% used a doctor, 77% used a tobacco or health promotion expert, 49% used a media consultant. A variety of other personnel were included such as a graphic designer, Indigenous film crew or agency, Aboriginal language experts, and school competitions. Two participants had developed the messages on their own.

## Message Features

Organisations were asked to indicate which features were used in tailoring their messages from a list of sixteen different message features. In the analysis, message features were expressed as a total and also divided in superficial and deep features as per Resnicow et al<sup>36</sup>. The number of superficial features (out of a possible 11) and the number of deep features (out of a possible 5) reported by the organisations were recorded. Superficial strategies include such items to ensure readability, such as large font or simple words, local languages, or slang, the 'look' or design of the message, colours, and images, and the use of demographic information pertinent to the target group. Deep features included the use of Aboriginal and/or Torres Strait Islander cultural beliefs or concepts, holistic wellbeing, family, story-telling, Indigenous role models, and community Elders or key representatives. Deep features therefore were deemed to be related to those described by Kreuter as constituent-involving and socio-cultural strategies, and superficial to peripheral, evidential and linguistic strategies<sup>37</sup>, (Table 1).

As the number of messages features was not normally distributed, exact Kruskal-Wallis tests were used to determine whether organisation type was related to the reported use of total message features, and superficial and deep features<sup>b</sup> separately. Neither the total count of messages features or the superficial features was significantly different according to organisational type. However AMSs were significantly more likely to use deep structure than the other organisations ( $p < 0.05$ ). Post hoc tests serially comparing paired groups using the Mann Whitney U show that there was a significant difference in the use of deep structuring between the AMSs and the GOs ( $p = 0.013$ , one-tailed) and NGOs ( $p = 0.015$  one-tailed)<sup>c</sup>. The paired comparison between AMSs and Unis was not

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<sup>b</sup> Signifying superficial and deep structure for cultural tailoring according to Resnicow et al.

<sup>c</sup> One-tailed p values are reported as we hypothesised that AMS would use more deep features, and significance held after the Holm sequential Bonferroni correction.

significantly different for deep structure, however there were only 4 universities and wide confidence intervals in this group made this comparison difficult to interpret.

Furthermore a scatter-plot was constructed of the number of deep structure message features used against the ratings of the bottom-up vs. top-down approaches. A linear relationship was revealed with a significant Spearman rank correlation coefficient between the number of deep structural features and a bottom-up approach ( $r = 0.463$ ,  $p < 0.001$ ). Therefore organisations rating higher on a bottom-up approach were more likely to use more deep structure in their messages.

### **Pretests**

The majority of organisations (72%,  $n=34$ ) reported performing a pre-test of their messages. The most frequent type of pre-test was informal by asking people what they thought (often in-house Indigenous health staff or Elders), followed by asking the steering committee/reference group (44%). Less frequently used were a survey (18%) or community groups (12% mixed, 5% single gender). 59% mentioned other means to pretest as follows: 19% discussed with AHWs/Health Promotion/Tobacco Teams, 15% did formal focus testing, 9% with schools/teachers, and 6% piloted their messages. The conduction of pre-tests was not associated with organisation type.

### **Cultural Challenges and Unexpected Outcomes**

All participants were asked about cultural challenges with 51% agreeing that they experienced some. Cultural challenges were divided into three main themes: the diversity of Aboriginal and Torres Strait Islander cultures, the choice of role models, and conflicts and delays that potentially affected the progress of programs (see Box 5). There was some overlap with responses to this question and responses elicited by the question about unexpected outcomes of messages. However only those who indicated they had performed a pretest (72%) were asked about unexpected outcomes.



## Box 5: Cultural challenge themes

### 1) Diversity of Aboriginal and Torres Strait Islander culture

It was considered necessary to ensure the diversity of Aboriginality and Torres Strait Islander cultures, beliefs and languages was acknowledged, and avoid inappropriate images and characterisations, and sometimes ensure gender appropriateness. Skin colour was a common theme with the need to choose different levels of skin tone in images or through actors/role models to portray the diversity of skin colour and avoid stereotyping. Some organisations reported that Torres Strait Islander people in their community had expressed that the diversity within their ethnic group was under-represented. Finding the right sort of artists who could deliver suitable work within time frames was a challenge. One organisation said having an in-house Aboriginal artist on the staff of the organisation was very helpful.

### 2) Choice of Role Models

Role models were challenging to choose, because it was recognised that quitters could potentially relapse, and be therefore embarrassed or shamed, and community members depicted on media resources may die. Sometimes difficulties ensued because of who had been chosen to represent the program and who had been overlooked. These challenges sometimes influenced the choices made, with some organisations avoiding those who were camera-shy, recently quit or the elderly with chronic disease. A challenge may arise as some Aboriginal clan groups have the cultural tradition of not naming or showing images of the deceased. To pre-empt this sensitive issue, one organisation asked all those photographed or filmed to sign consent for their images to be used after their death and obtained their family consent.

### 3) Conflicts and delays

There was recognition that when working collaboratively with community challenges may arise. There was sometimes tension between organisational needs and ensuring the needs of the community were met. Most participants expressed how they or members of their organisation had reflected on the challenges that occurred and talked positively about lessons learnt. Unfortunately, cultural differences between the Aboriginal community and non-Indigenous people in organisations were cited as potential barriers to work being completed. Some reflections suggested the need to reduce community ownership of aspects of the programs to fit project time frames or avoid challenges. Some people interviewed expressed how these types of cultural challenges had occurred but were able to be resolved to produce culturally appropriate messages and meet community needs. One person interviewed explained how political issues between organisations (both Indigenous and non-Indigenous organisations) influenced their program.

## Positive and negative unexpected outcomes

Responses about unexpected outcomes were categorised into two further themes: better than expected responses to the program/messages, and negative responses i.e. complaints about resources or messages not being understood or being too confronting.

Over 50% of those who responded to the filter question about pre-test cited better than expected outcomes such as overwhelmingly positive responses, local pride in the programs/messages, resources being sought after even in other areas, and non-Indigenous local people also valuing the program. Over 30% cited unexpected negative responses. By filtering out those who did not do a pre-test some additional information may have been lost and both these figures may be an inaccurate estimation of the whole group.

### Recommended actions and referral options

Recommended actions (such as recommending behavior change or to seek help) were used by over 90% of organisations (Table 2). Recommended actions included a list of referral options (such as see your GP, attend the AMS, ring the Quitline). Most organisations (66%, n=31) gave two or more referral options, however 11% (n=5) did not refer. The majority recommended quitting (75%, n=33). AMSs were significantly more likely to recommend quitting than the other organisations when combined. (Fishers 2-sided exact test;  $X^2=5.16$ ;  $df=1$ ;  $p < 0.05$ .) Some organisations said they deliberately avoided explicitly asking people to quit because it may put pressure on them. A few organisations (n=6) recommended reducing tobacco consumption. As this is controversial and not necessarily evidence-based (unless using nicotine replacement therapy to reduce smoking), we explored whether there was any association between the organisation's use of theory, or the utilisation of expert advice/literature review, and whether people were advised to quit or 'reduce smoking' with Fishers exact tests – but there were problems with low cell counts. On inspection there were no obvious associations: out of the 6 organisations that recommended smokers to reduce consumption, half of them had used theory and expert advice.

### Resources

Organisations reported developing a wide variety of resources to transmit the messages, although a few resources just carried the project logo. Resources included five main categories (Box 6).

#### Box 6: Categories of resources

1. Print media i.e. posters (78%), pamphlets/booklets (57%)
2. Digital media i.e. CDs (15%), DVDs (26%), phone apps (two only), Hit-net (one)
3. TV ads (33%), radio ads (22%), social media (34%), websites (41%)
4. Merchandise i.e. T-shirts/other apparel (Facebook, twitter, YouTube) (52%), other merchandise (51%)
5. Resources for quit groups (15%), staff training (41%), other resources (38%)

Many of the 'other merchandise' was themed to carry an association with going smoke-free such as house-shaped money boxes to promote smoke-free homes and encourage saving, dental care products to remove the smell of smoking, stress balls/wrist bands to distract from smoking etc. 'Other resources' included flip charts, quit kits, children's book, teachers resources, e-learning material, smoke-free signage, motivational cards,



presentations, a documentary, a board game, a costumed character, and a comic book. A couple of organisations produced songs: either on CD or played live.

## Evaluation

Twenty-five organisations (53%) reported evaluating their programs. The main types of evaluation are detailed in Table 2 (appendix). Thirty percent of all of the organisations assessed quit rates, 14% validated the quit rates (e.g. using the smokerlyser), 48% assessed smoke-free behaviours and 34% assessed knowledge/attitudes about smoking. Other evaluation measures cited were recall/awareness of messages (17%), staff training or use of resources (11%), calls to Quitlines or user demographics (4%), workplace policy monitoring (4%), and improvements in children's health (2%).

Pearson's Chi-Square 2-tailed tests were used to examine differences between organisation types and orientation and whether they evaluated their programs. Organisations normally serving the general population were significantly more likely to have reported evaluating their programs than the organisations serving Aboriginal and Torres Strait Islander populations, ( $X^2 = 13.6$ ,  $df = 1$ ,  $p < 0.0005$ ). (A similar result was observed when dividing organisations between AMSs and all other organisations combined, ( $X^2 = 7.59$ ,  $df = 1$ ,  $p < 0.005$ ). However many AMSs were in the early stages of their programs, and stated they had not the chance yet to evaluate them. When we took into account those who indicated they were in the process of evaluating their programs or had planned to do so, the emphasis changed. We discovered that 72% ( $n=34$ ) of organisations had either evaluated or said they were planning evaluations and there were then no significant differences between AMSs and the other organisations. When organisations were divided according to orientation to Aboriginal and Torres Strait Islander populations or the general population, the association however remained significant ( $X^2 = 7.13$ ,  $df = 1$ ,  $p < 0.05$ ).

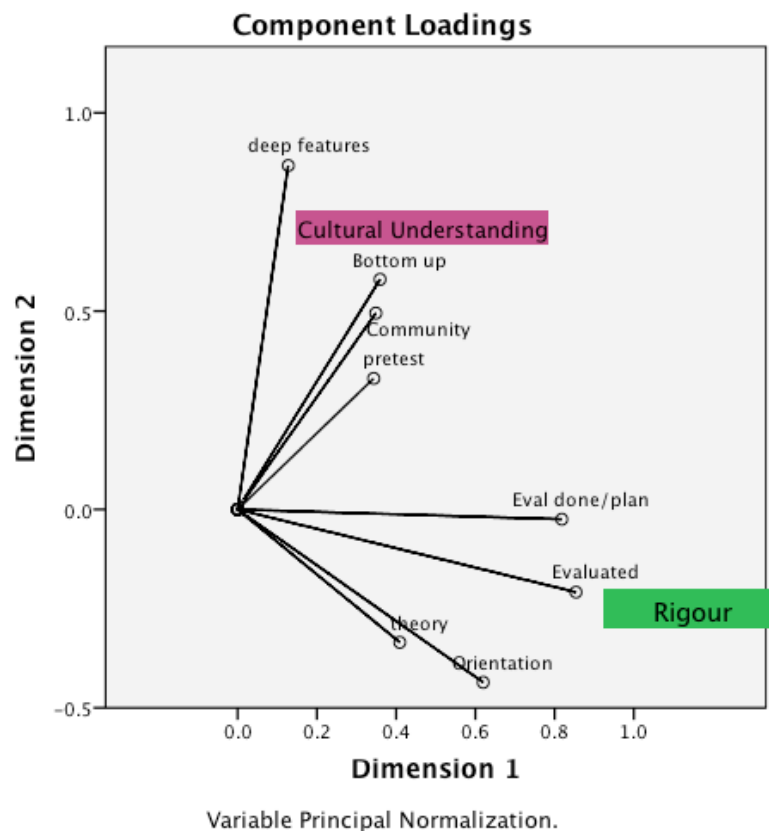
## Categorical Principal Component Analysis (CATPCA)

To examine other potential associations between both categorical and numerical variables, we iteratively conducted several non-linear principal component analyses with Categorical Principal Component Analysis (CATPCA) <sup>44</sup> (Box 7).

### Box 7: Process of analysis for CATPCA

Initial inclusions were the following variables: organisation type, organisation orientation, rurality, total score, theoretical frameworks used, individual vs. community approach, top down vs. bottom-up approach, total message features, deep and superficial message features, recommended actions, advice to quit vs. reduce consumption, referral options, pretests, evaluation, evaluations done or planned, unexpected outcomes, and cultural challenges.

When eight of the most relevant items were retained for analysis, the CATPCA revealed two dimensions with eigenvalues of 2.34 and 1.79 thereby accounting for 53% of the variance in findings.

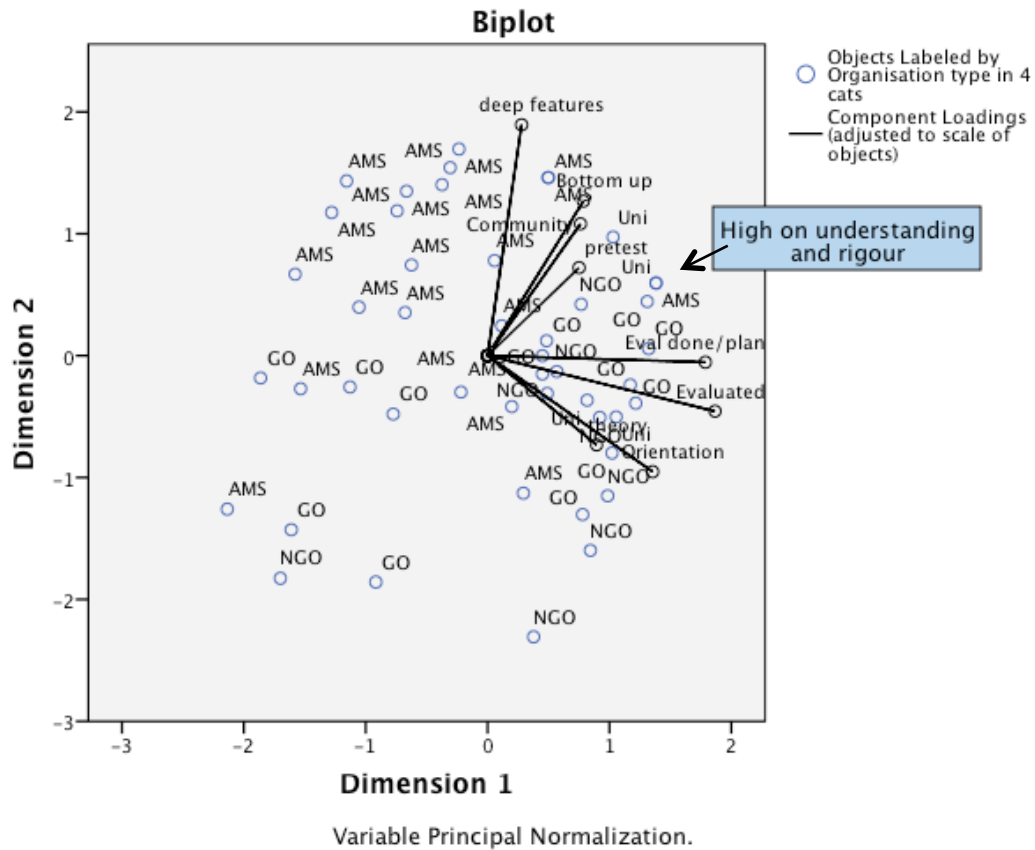


**Figure 4: Component Loadings from CATPCA on eight retained variables**

*As component loadings indicate Pearson correlations they range between -1 and 1 in this two dimensional solution. The variables form two groups described here as “Cultural Understanding” and “Rigour”. The co-ordinates of the end point of each vector are given by the loadings of each variable on the first and second dimensions. The variables closely grouped together in the plot are closely and positively related. Vectors making a 90-degree angle indicate they are not related.*

Legend: ‘Community’ = Individual vs. community orientation; ‘Bottom-up’ = Bottom-up vs Top-down approach; ‘deep features’ = numbers of deep message features; ‘pretest’ = a pretest was conducted; ‘eval done/planned’ = an evaluation was either completed or planned; ‘evaluated’ = evaluation was completed; ‘theory’ = a theoretical framework was used; ‘orientation’ = the organisation usually served the general population vs the Aboriginal and/or Torres Strait Islander population.

Figure 4 shows the plotted coordinates for the eight retained variables on each dimension. The figure depicts how the variables relate to one another and to the two dimensions. The items ‘Community’, ‘Bottom up’, ‘deep features’ and ‘pretest’ are grouped high on dimension 2 and in the lower range of dimension 1. The other items coded above as ‘evaluated’, ‘eval done/plan’, ‘theory’, and ‘orientation’ are grouped on the positive scale of dimension 1 and low on dimension 2. The items ‘pretest’ and ‘theory’ are closer to the centroid (0), which means they contributed less to the overall variance. We have named these two principle categories “cultural understanding” and “rigour”.



**Figure 5: Biplot of the organisation types**

Objects represented by circles and the component loadings indicated by vectors from CATPCA on the 8 variables. The vectors for the component loadings have been adjusted to the range of the objects for clarity. The organisations that are plotted between the two ‘arms’ of the vector groups are high on both “cultural understanding” and “rigour”.

Legend: AMS = Aboriginal Medical Service; GO = government organisation; NGO = non-government organisation; Uni = University

Figure 5 shows a scatter plot with each case (labelled with organisation type) plotted along dimension 1 and dimension 2. Here, we can see that a large cluster of AMSs is high on cultural understanding on dimension 2. Some of the other organisations (GOs, NGOs, and Unis) are high on dimension 1 (rigour) but low on dimension 2 (cultural understanding). The organisations that are high on both dimensions (placed between the two principal component axes in the right upper quadrant) would be expected to be combining both a high degree of “cultural understanding” and “rigour”, and may be exemplary cases for the development of anti-tobacco messages. These include a range of organisations of all types. (These organisations additionally scored high on the overall scoring system as in Box 4). A few outliers, in the bottom left quadrant of the figure, are low on both dimensions of cultural understanding and rigour.

Combining the results from the CATPCA and the test statistics already detailed, we can see the importance given to cultural understanding (using a bottom-up community approach, incorporating deep features relating to cultural values into messages, and including the use of pre-tests) especially by the AMSs. This indicates the strength of the

AMSs in providing a cultural understanding of the issues about smoking and an empowerment approach. The use of theory and evaluations may be considered to be the strength of the some of the other organisations, which are normally orientated to the general population. However we have to emphasise these findings are a snapshot of what is occurring at a single point in time, and many AMSs, as previously mentioned, have embarked on programs but have not yet had the chance to evaluate them.

## 7. Discussion

The national survey examined the different phases of message development as recommended by several published sources. The survey revealed several differences in the way different categories of organisations were developing anti-tobacco messages for Aboriginal and/or Torres Strait Islanders. The principal findings included the use of a bottom-up community based approaches by 47%, the use of positive benefit and educational messages more than threat campaigns. Threat or negative emotion messages were used by less than half of the organisations, and there appeared to be general caution about the use of these, with more emphasis on positive benefits of quitting, and educational messages and those concerning second-hand smoke. AMSs significantly used more deep structure to tailor their messages, and recommended quitting significantly more than the other organisations. Conversely the other organisations were more likely to have evaluated their programs than the AMSs, however this significance was not upheld when taking into account those planning future evaluation. The CATPCA confirmed the importance of the two dimensions of “cultural understanding” and “rigour” to explain differences in organisational approaches, and is used as a basis to structure the following discussion.

### Cultural Understanding

The cultural understanding dimension on the CATPCA consisted of the parameters of Beattie’s Health Promotion Model (community-based, bottom-up), pretests and use of message features for cultural sensitivity, significantly deep structure. We propose that cultural understanding is essential to developing appropriate anti-tobacco messages for Aboriginal and Torres Strait Islander Peoples, and is initiated with the process of community consultation.

Community consultation alone is not substantial enough to predict the use of deep structure or an empowerment approach. We see that community consultation was given importance and engaged in by nearly all the organisations, irrespective of the approaches used according to Beattie’s Health Promotion Model. The biggest sector of organisations utilised a bottom-up approach (60%). The responses indicated that there is a spectrum and many used a mixed (28%), or what could be interpreted as a parallel track approach (using bottom-up approaches within an otherwise top-down program)<sup>45</sup>. Although social marketing and behaviour change approaches are traditionally thought of as top-down<sup>45</sup>, we see here that they can be developed from a bottom-up level when the community is engaged and desirous of the change. Bottom-up approaches are considered more likely to be empowerment models<sup>45</sup>. Other hallmarks of empowerment were frequently described by the organisations such as respect for and sensitivity to culture and health

care needs, authentic participation and community engagement, building supportive environments and cohesion in the community, increasing coping skills and efficacy <sup>43</sup>. Empowerment approaches however take time and may not be achievable within the confines of limited project frameworks <sup>45</sup>. The other issue for consideration in this study is whether the organisation was considered to be inside the community (e.g. the AMSs which are community controlled) or outside. What may be termed 'top-down' by an AMS could be different qualitatively than that determined by a GO.

The other element from Beattie's Health Promotion Model is that of community versus individual approaches. The use of mixed individual and environmental or community approaches is supported by other researchers <sup>46, 47</sup>, with 68% in our study using a community-based or mixed approach. According to Noar et al, the customisation of health messages and materials at the individual level is an effective health behavior change practice, but can also be applied at a community level, with population-level interventions being capable of far greater impact due to their potential for wider reach <sup>46</sup>.

Most of the organisations reported using two or more referral options as a recommended action, which has been shown to significantly influence the effectiveness of the message <sup>46</sup>. In a meta-analysis of behavior change interventions in a clinical setting by Dolan Mullen et al, two or more contacts with a behavioral orientation, when combined with audio-visual media-plus-personal communication had larger effects for interventions related to smoking <sup>47</sup>. Thus the multiple strategies been used by many of the organisations interviewed are likely to predict success.

Message features for cultural sensitivity included superficial and deep structure. Both superficial and deep structures are required for culturally sensitive messages <sup>48</sup>. According to Resnicow superficial elements relate to the 'fit' or feeling of identification with the message. Good visual design is considered to be of importance to the success of tailored communication and was included in the superficial features used by most of the organisations <sup>49</sup>. The importance of the finding that the AMSs were more likely to use more of the deeper structures (such as incorporating an Indigenous world view, spiritual, cultural and family values <sup>50</sup>) for cultural sensitivity, is that the deep structures relate to message 'salience', i.e. how important or significant the message is perceived to be. The superficial messages are peripherally processed, and the deeper messages are centrally processed. Peripherally processed messages are more indirect and may be useful in those people who are not yet motivated to change their behaviour, and are also the basis for heuristic messages and positive benefit appeals <sup>31</sup>. However, centrally processed messages are more likely to produce longer lasting effects <sup>46</sup>. The use of more of the deeper elements by AMSs would predict a higher level of message salience. Furthermore the use of deep structure correlated significantly with a bottom-up approach, lending credence to cultural understanding being a significant indicator of this dimension.

The less frequent use of threat messages here is concordant with previous research which shows that messages aimed at threat only are less likely to be effective, than those combined with a positive approach that supports efficacy <sup>38, 46</sup>. None of the organisations used a threat approach as a sole strategy.

Although cultural challenges, and unexpected negative outcomes may have been reported by many organisations this may not be an adverse outcome, as awareness is vital and

sensitivity to these challenges leads to an opportunity to be a reflective and reflexive<sup>d</sup> practitioner. Flexibility should be built into the evaluation cycle through an action research approach.

Culturally appropriate programs need to move beyond the issues of targeting by developing a greater cultural understanding, respecting and fostering empowerment, and responding to local need <sup>51</sup>.

## Rigour

The dimension of rigour included the use of theoretical frameworks and evaluation. A good evidence base or assessment of program theory is recommended to ensure an ad hoc process is avoided <sup>43, 52</sup> however a grass-roots approach may circumvent this need to some extent providing community development processes are observed.

More than half of the organisations used a theoretical basis for their development. This is promising as those programs that use a higher number of theoretical concepts for tailoring have been found to be associated with larger effect sizes in print materials in a meta-analysis by Noar et al <sup>46</sup>. Most organisations we surveyed promoted a behaviour change with 75% promoting quitting, and many took local and cultural demographical information into account. The use of tailored print resources were found by Noar to be strengthened by combining them with both behavioural approaches and demographic characteristics (such as cultural aspects, settings, geographical locations) for a further cumulative effect <sup>46</sup>. Behavioural only approaches that excluded a theoretical foundation have been shown to be weaker than those that were theoretical only (with no behavioural component). Cultural tailoring additionally improves the impact of theoretical tailoring <sup>53</sup>. Equivalent meta-analyses have not been done for audio-visual messages; however internet based interventions have shown promise in Native Americans <sup>54, 55</sup>.

Evaluation is of importance in any health promotion project to determine whether desired goals and objectives have been realised <sup>43</sup>, and to build an evidence-base for future interventions. Most public health strategies for Aboriginal and Torres Strait Islander communities are not evaluated, inadequately funded, not sufficiently robust to measure impacts, and not published <sup>56</sup>: a structural imbalance which needs to be urgently addressed <sup>57, 58</sup>. Some current Indigenous tobacco funding contracts do not mandate evaluation, and others may specify 'not for research'. Carson et al further point to the need for methodological rigour in research that runs alongside community tobacco programs, with adequate control groups, pre and post measures, and meaningful follow-up periods <sup>59</sup>.

Both cultural understanding and rigour have importance in the development of tobacco control approaches for this population, and ideally, an organisation should employ both. Several organisations fitted into the bracket of what may be exemplary projects. Many of the AMSs, at earlier stages in their program development, may have yet the opportunity to institute an evaluation plan, and several expressed an intention to do so. Organisations need to be well resourced to be able to evaluate program outcomes. Resourcing importantly includes dedicated funding, adequate time frames, human resources and expertise. Several organisations faced uncertainty and did not yet know whether their tobacco projects were going to be continued beyond the end of the financial year in

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<sup>d</sup> Reflexivity is to challenge ones own assumptions about cultural understanding and meaning



2013, and one organisation stated their ability to evaluate was contingent on receiving further funding. Another organisation had recruited an evaluation officer but the short time frame of the funding did not allow many outcomes to be assessed.

Contrariwise, organisations that were less in touch with the deeper aspects of cultural understanding, yet scored high on rigour would have less opportunity to backtrack and redress an earlier omission. Therefore, we recommend the use of deep structure be considered for messages by all organisations early in the project plan.

## Campaign Design

There are also implications here for campaign and message design. While much of the research on mass-media campaigns has occurred in high income countries with less emphasis on special needs of disadvantaged groups such as indigenous populations<sup>60</sup>, there has been some attention to people in low SES brackets<sup>4</sup>. Some comparisons are cautiously made here with the evidence about mass-media tobacco campaigns from populations of low socio-economic status (SES)<sup>4</sup>, as 57% Aboriginal and Torres Strait Islander Peoples are in the lowest three deciles of disadvantage<sup>61</sup>. There is also consistent evidence to support a positive social gradient on smoking for Aboriginal and Torres Strait Islander Peoples<sup>62</sup>.

Campaign reach is crucial with TV giving the most effective recall, although new media are yet to be comprehensively analysed. According to a recent review of mass media campaigns, low SES groups require higher exposure to anti-tobacco messages to effect the same changes as mid-high SES groups<sup>11</sup>. Negative health effect (NHE) themes (including the use of testimonials and graphic depictions) appear to be more effective for low SES and smokers who are disadvantaged<sup>11, 63</sup>. A mix of NHE and how-to-quit messages may be beneficial generally in low SES populations, but how-to-quit/keep-trying-to-quit on their own are less successful<sup>11</sup>. The issue about avoiding the use of fear-based or threat messages for Aboriginal and/or Torres Strait Islanders has so far limited qualitative support<sup>64</sup> and not yet supported experimentally. Strong graphic images and those featuring an ill person have been rated highly by Aboriginal and Torres Strait Islander smokers<sup>13</sup>. Smokers in low SES groups also may have less opportunity to support abstinence in the long term<sup>4</sup>, compounded by low access to suitable services. Further issues about campaign reach and sustainability need to be taken into account as people get message effects seem to ‘wear-off’<sup>11</sup> – the ‘decay effect’ which occurs after only 2-3 months of exposure. Fresh approaches may be required and messages recycled requiring higher financial investments.

Furthermore, the indirect effects of media messages are important<sup>11</sup>, especially talking about the campaign with others: this can further promote quitting through social networks and maybe highly relevant to local approaches taken in Aboriginal and Torres Strait Islander communities. ‘Real stories’, paired with information on where to seek help, have stimulated increased calls to Quitline<sup>65</sup> and may encourage dialogue amongst smokers from low SES communities.

There is evidence that targeting youth through media and multi-component community interventions are both effective approaches to prevent smoking uptake<sup>66,67</sup>. However there is insufficient research available to be certain these approaches work for Indigenous youth<sup>68</sup>. The prominent approach towards youth revealed by our study is

worthy of trial as young people represent such a large percentage of the Aboriginal and Torres Strait Islander community, and there is limited evidence that culturally targeted programs can also assist Indigenous youth to quit smoking<sup>12</sup>.

The uses of comprehensive approaches are promising in our study. Media campaigns appear to be most effective among low SES smokers when they are implemented alongside larger more comprehensive tobacco control programs that include community mobilisation, free access to NRT, social support and policy changes to transform the social context of tobacco use<sup>4</sup>. Being scared to smoke needs to be balanced with increasing efficacy to quit<sup>69</sup>.

Improving the health of a community requires a holistic health promotion approach, i.e. the combination of downstream, midstream and upstream strategies<sup>43</sup>. This can be accomplished by employing a range of individual to population based health promotion strategies where individual health challenges are addressed, while the social, political and environmental infrastructure supports good health<sup>43</sup>. The range of interventions for tobacco control needs to include cessation interventions, tobacco health education<sup>23</sup> through to policy and supportive infrastructure giving people the means to avoid environmental tobacco smoke<sup>70</sup>.

### **Strengths of the study**

This study uniquely examines the contemporary factors that contribute to the development of anti-tobacco messages for Aboriginal and Torres Strait Islander communities as reported by organisations involved in Indigenous tobacco control and cessation. Due to the high response level, and the contribution of organisations from nearly all States and Territories, and the spread across urban, rural and remote areas, the study is likely to be valid in terms of transferability to other organisations engaged in tobacco control and cessation for other Aboriginal and Torres Strait Islander communities in the near future.

The use of CATPCA has enabled us to propose two important dimensions that need to be considered when planning anti-tobacco messages and programs. The study we believe has effectively captured current strategies occurring Australia-wide. A supplementary report is planned once the evaluation reports and resource samples, that several organisations provided, have been examined. It is intended that these studies will contribute to the development of best practice guidelines.

### **Limitations of the study**

One limitation could be the influence of self-report to answer those questions where factual information is required. This may be less likely to occur with a telephone interview where some degree of probing is possible. However, it was recognised that some degree of intersubjectivity was inevitable. We did not ask specifically whether and how organisations were targeting the social determinants of health. We focussed on smoked tobacco and did not ask specifically about chewing tobacco. Some organisations may have been missed if their programs were not publicised.

## 8. Recommendations

We recommend strategies that fall into three basic areas: pre-empting cultural challenges, refining evaluation and synergy of action. Several other points are raised in the summary of recommendations in Box 9.

### Pre-empting Cultural Challenges

#### Box 8: Factors to consider for Aboriginal community health education

(Trudgen <sup>71</sup>)

Trudgen suggests several factors to take into consideration when planning health education for Aboriginal communities (Chapter 12, pp 202-208):

- a. Information needs to be delivered in a culturally correct way
- b. Health education must be approved and controlled by appropriate leaders of the community, before going to the rest of the community
- c. Information source needs to be credible
- d. Community needs to be convinced and knowledge needs to survive intellectual debate
- e. Whole community needs to be taught, not just expect Elders or children to pass on messages, as this can cause divisiveness, and messages could be culturally rejected, and lead to loss of faith in Elders.

There are some general principles to consider in educational approaches for Aboriginal communities (see Box 8). Pre-empt cultural challenges also by anticipating the three themes revealed by the organisations (see Table 3 for issues and potential solutions), and by being flexible. Having adequate formative (pre-tests) and process evaluations should help avoid unexpected negative outcomes such as messages being too confronting or being misunderstood. Humour has been recommended for use in Indigenous campaigns <sup>17</sup>, but also there are also cautions to its use as it may be disrespectful and undermine seriousness of the topic<sup>71</sup>. The use of art and images was often raised as a cultural challenge. Although the Australian Council for the Arts have general guidelines <sup>72, 73</sup>, these are very limited when considering the use of Aboriginal arts/media for health purposes. Some guidance is available for the use of video <sup>74 75</sup>, and issues about images and skin colour <sup>15</sup>, and the use of art generally for health promotion <sup>76</sup>.

**Table 3: Pre-empting cultural challenges**

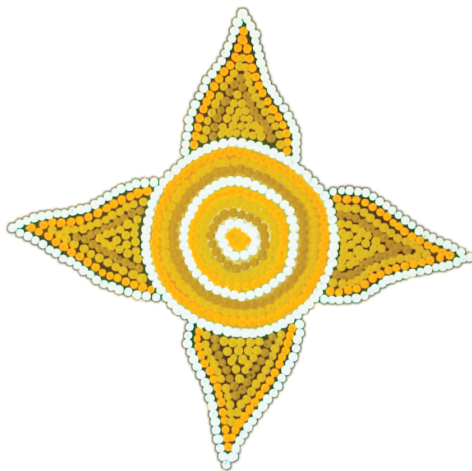
Themes	Challenges	Solutions
<b>Diversity of cultures</b>	Stereotyping Different language groups and tribes Artists not experienced in health	Use ethical guidelines to address issues of cultural diversity and heterogeneity Try to include representatives for all target groups in formative evaluation Have a mechanism for decision-making Induct artists and give guidance on what required from suitable mentors
<b>Role Models</b>	Role models may relapse Community members may die	Respect individual sensitivities about how people are portrayed Provide support and follow up Discuss issues with all role models up front If appropriate consider contracts for permissions from person/family to use media in the event of death
<b>Conflicts and delays</b>	Time Communication processes and relationship building Working with non-Indigenous staff	Adequate time frames need to be factored in Bottom-up approaches have great potential but need more time Set up good processes for communication from the start Use local knowledge to include all sectors of the community in consultation Plan for ways to resolve issues Be responsive to changing priorities Provide cultural training for non-Indigenous staff

Policy changes are required to ensure funding cycles are realistic and long enough to achieve the goals and objectives of the programs. Uncertainty about refunding may result in the loss of experienced staff members. High staff turnover has the potential to destabilise programs and slow down the delivery of quality outcomes.

## Refining Evaluation

Evaluation can be thought of in four basic areas, as depicted in Table 4, based on excellent materials available from the American Cancer Society's Global Dialogue Campaign Development Toolkit <sup>77</sup>. The toolkit provides guidelines on the development of tobacco campaigns which include sections on special populations, market testing and evaluating media campaigns and community programs <sup>77</sup>. Every program will differ depending on what are their goals and objectives. The first three evaluation types in Table 3 should be considered by all projects and a plan devised up front on how these will be tackled. In general one expects awareness of messages to occur before knowledge/attitudes/beliefs change, and health behaviours to change last of all <sup>77</sup>. The fourth type, long-term outcome evaluation, is likely to be out of the scope of most projects as it depends on larger level population studies. Formative research is assessed by what we termed pre-tests. If appropriate these could be include more formalised elements, and therefore easier to track and report on. Daley et al have suggested a three stage method of assessing resources for Native Americans for scientific accuracy, readability and cultural appropriateness <sup>78</sup>. Evaluation can involve both qualitative (what and how) and quantitative (how many and how often) measures. Community evaluation needs to involve local stakeholders in meaningful ways <sup>52</sup>.

Evaluation may not always be a requirement of a project, but provides good evidence to disseminate out to the community and to peers, helps build up 'best practice' and may help ensure on-going funding <sup>52</sup>, by giving evidence for effective implementation. Evaluation is important to give essential feedback to communities and staff members <sup>20</sup>, and celebrate 'small wins' to keep up motivation and interest. Evaluation of current tobacco projects may also demonstrate which approaches are worthy of more formal research. Future initiatives should be designed with strong research and evaluation components from inception <sup>59</sup>. As 2-3 year time frames make it challenging to adequately achieve both the formative stages of a complex bottom-up program and rigorous evaluation, interventions and programs need to be of sufficient duration.



**Table 4: Recommendations for Evaluation**  
*(Based on Global Dialogue Campaign Development Toolkit<sup>77</sup>)*

Evaluation Aspect	Purpose	Timing	What to test	Suggested Methods
<b>Formative evaluation</b>	Test concepts and messages based on formative research with the community	Developing campaign materials or program	Acceptability of messages/resources Readability Content	Focus groups Steering Committee/Reference Group Surveys
<b>Process Evaluation</b>	How well the campaign or program is working Unforeseen obstacles	Implementation of campaign or program	Community partners involved Use of resources Events conducted Numbers attending events Receptivity of target group Numbers of TV/radio ads aired	Observation Amount of resources used Hits on website/use of social media Survey Focus groups Interviews
<b>Outcome Evaluation – short-term and intermediate</b>	Determines if goals being realised Unexpected outcomes	Evaluate when changes expected – depends on goals and length of project Pre and post testing is ideal so changes can be tracked	Awareness/recall of messages Community involvement and reach Knowledge/attitudes/beliefs Behaviour e.g. quitting and smoke-free zones Access to quitting Services	Surveys Focus Groups Interviews Quit attempts & Quitting: self-reported or validated by CO readings Smoke-free zones: self-reported or observed Calls to Quitline, visits to AMS/GP
<b>Long-term Outcomes</b>	Long term effects	At end of campaign or later	Prevalence of smoking Smoke-free households	Pre and post population studies – large surveys

### Synergy of Action

We further recommend synergy of action through partnerships. As different organisations may have different strengths and capacities, according to the results from the CATPCA, it is recommended that consideration be given to respectful partnerships and synergistic action with organisations from different sectors, bringing together the essential components of cultural understanding and rigour. Feedback will help to grow evidence for best practice. However, community-based bottom-up approaches (empowerment models) should be maintained throughout, (see Figure 6). Partnerships may also assist movement forward to a new phase of more formalised research running alongside Indigenous tobacco projects.

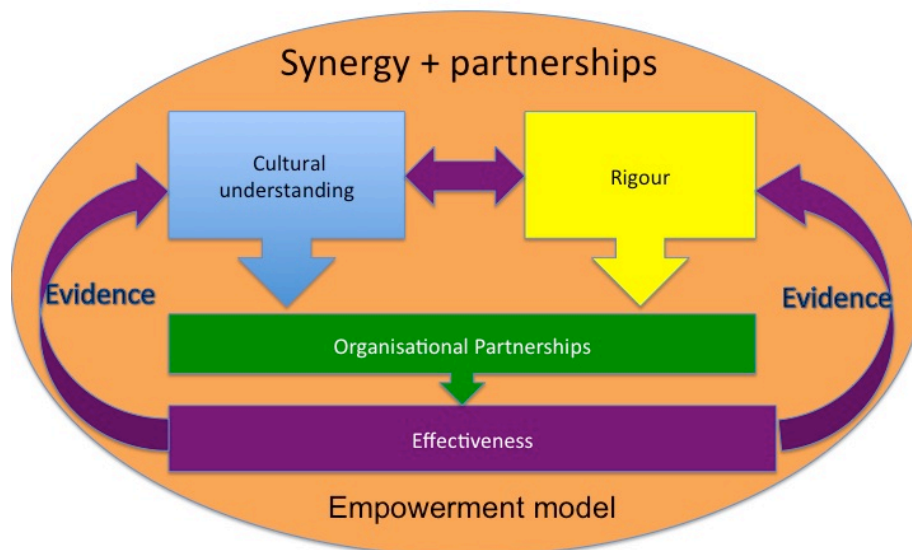


Figure 6. Synergy of Action through Partnerships



### Box 9: Summary of recommendations from the national survey

- Both cultural understanding and rigour have importance for this population: ideally organisations should employ both in developing anti-tobacco messages.
- Empowerment models with Community focused – Bottom-up programs should continue to be used, with flexibility also for individually targeted cessation support.
- Deep structure for messages should be considered early in the project plan. Organisations less in touch with cultural understanding may have limited opportunities to redress earlier omissions.
- Aboriginal Medical Services have recognised the importance of targeting youth in their media campaigns: this should continue in view of the large percentage of young people in these populations.
- Recommendations for individuals and communities to quit smoking are best practice, and also provision of two or more referral options is ideal.
- Pre-empt cultural challenges by anticipating the three themes of diversity, roles models and conflicts and delays revealed by the organisations, and by being flexible.
- Organisations need to be well resourced to evaluate program outcomes. This includes dedicated funding, adequate time frames, human resources and expertise. This may include building research capacity within Indigenous organisations.
- Refinement of evaluation could include: more formalised pre tests, process evaluation of programs, campaign awareness and recall, community involvement and reach, changes in knowledge, attitudes and beliefs, behaviour change (with standardised and/or validated quit rates and smoke-free behaviours), and access to cessation services.
- Long-term outcomes such as changes in smoking prevalence may be beyond the scope of these programs.
- We recommend synergy of action through partnerships. As different organisations have different strengths and capacities, consideration should be given to respectful partnerships and synergistic action with organisations from different sectors.
- The following areas warrant further investigation:
  - How organisations are targeting a social determinants approach to aiding smoking cessation.
  - Responses of Aboriginal and Torres Strait Islander peoples to threat appeals (negative health effects) and positive benefits appeals.
  - The use and acceptability of messages to promote treatments such as Nicotine Replacement Therapy.
  - Approaches to the development of messages about other forms of tobacco such as chewing tobacco.

## 9. Conclusion

Features associated with successful campaigns<sup>12, 46</sup> are starting to be used in Australia for Aboriginal and Torres Strait Islander communities exposed to tobacco smoking. This study has provided new insight into the current development of anti-tobacco messages in Australia by linking the use of both cultural understanding and rigour to enable the growth of evidence based practice. Ideally message tailoring should also include theoretical, behavioural and cultural aspects with Indigenous advisors, to effect cessation<sup>46</sup>. Attention to message design, informed by theory, and providing excellent campaign reach is critical. Superficial structures assist message ‘fit’. Deep structures, significantly used by AMSs, are centrally processed may influence message salience<sup>11, 36, 69</sup>. Anti-tobacco messages are best used as part of comprehensive programs giving pragmatic support and services for those attempting to quit, and attention to the underlying social determinants of health. We recommend refinement of evaluation, pre-empting cultural challenges, and synergy of action between organisations from different sectors to better develop salient anti-tobacco messages and achieve the goal of closing the gap on Indigenous health caused by tobacco smoking. The future development of specific guidelines for Indigenous tobacco control and anti-smoking health promotion programs may facilitate these processes.



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## 12. Appendix

**Table 2: Descriptive Statistics of Organisations by Type.**

<b>Variable</b>	<b>Total N=47 n (%)</b>	<b>AMS N=22 n (%)</b>	<b>GO N=13 n (%)</b>	<b>NGO N=8 n (%)</b>	<b>Uni N=4 n (%)</b>
<b>Organisation type</b>	47	22 (47%)	13 (28%)	8 (17%)	4 (8%)
<b>Orientation</b>					
Aboriginal & Torres Strait Islander popn	25 (53%)	21 (95%)	3 (23%)	1 (12%)	0
General population	22 (47%)	1 (5%)	10 (77%)	7 (88%)	4 (100%)
<b>Remoteness Index</b>					
RA1 (urban)	19 (40%)	6 (27%)	8 (62%)	4 (50%)	1 (25%)
RA2 + RA3 (regional)	20 (43%)	10 (45%)	4 (31%)	3 (38%)	3 (75%)
RA4 + RA5 (remote)	8 (17%)	6 (27%)	1 (8%)	1 (12%)	0
<b>Target audience</b>					
Youth	30 (64%)	19 (86%)	6 (46%)	3 (38%)	2 (50%)
Pregnancy	26 (55%)	11 (50%)	9 (69%)	4 (50%)	2 (50%)
Adults	24 (51%)	12 (55%)	8 (62%)	4 (50%)	1 (25%)
Elders	15 (32%)	10 (45%)	3 (23%)	1 (13%)	1 (25%)
Tailored to subgroup	23 (49%)	13 (59%)	5 (38%)	3 (38%)	2 (50%)
<b>Theory used</b>	26 (55%)	9 (41%)	10 (77%)	5 (63%)	2 (50%)
<b>Individual-Community</b>					
Individual	15 (32%)	4 (18%)	6 (46%)	3 (37.5%)	2 (50%)
Mixed	15 (32%)	8 (36%)	3 (23%)	3 (37.5%)	1 (25%)
Community	17 (36%)	10 (46%)	4 (31%)	2 (25%)	1 (25%)
<b>Top Down–Bottom Up</b>					
Top down	6 (13%)	3 (14%)	1 (8%)	2 (25%)	0
Combined	13 (28%)	5 (23%)	3 (23%)	4 (50%)	1 (25%)
Bottom up	28 (60%)	14 (64%)	9 (69%)	2 (25%)	3 (75%)
<b>Message types</b>					
Educational messages	35 (75%)	16 (73%)	7 (54%)	8 (100%)	4 (100%)
Positive Benefit	41 (87%)	21 (95%)	10 (77%)	6 (75%)	4 (100%)
Threat	18 (38%)	9 (41%)	3 (23%)	4 (50%)	2 (50%)
Advocacy	37 (79%)	19 (86%)	8 (62%)	7 (88%)	3 (75%)
Heuristic	20 (43%)	12 (55%)	5 (38%)	2 (25%)	1 (25%)
<b>Community consulted</b>	45 (96%)	21 (96%)	12 (92%)	8 (100%)	4 (100%)
Indigenous advisors	46 (98%)	22 (100%)	12 (92%)	8 (100%)	4 (100%)
<b>Pre-tested</b>	34 (72%)	18 (82%)	7 (54%)	5 (63%)	4 (100%)
<b>Cultural challenges</b>	24 (51%)	11 (50%)	6 (46%)	5 (63%)	2 (50%)
<b>Recommended actions</b>	44 (94%)	22 (100%)	11 (85%)	7 (88%)	4 (100%)
Recommend Quit	33 (75%)	19 (86%)	7 (54%)	3 (38%)	4 (100%)
Smoke-free homes	34 (77%)	18 (82%)	6 (46%)	4 (50%)	4 (100%)
Refer AMS/AHW	29 (66%)	17 (77%)	6 (46%)	3 (38%)	3 (75%)
Refer GP	24 (55%)	14 (64%)	4 (31%)	4 (50%)	2 (50%)
Refer ATOD services	10 (21%)	7 (32%)	1 (<1%)	1 (<1%)	1 (25%)
Refer Quitline	34 (77%)	18 (82%)	8 (62%)	5 (63%)	3 (75%)
Referral options ≥2	31 (66%)	16 (73%)	7 (54%)	5 (63%)	3 (75%)
<b>Resources</b>					
Print	34 (91%)	22 (100%)	11 (85%)	6 (75%)	4 (100%)
AV/new media	30 (64%)	16 (73%)	7 (54%)	4 (50%)	3 (75%)
Merchandise	36 (77%)	18 (82%)	9 (69%)	5 (63%)	4 (100%)
Social media/website	23 (49%)	14 (64%)	3 (25%)	4 (50%)	2 (50%)
<b>Distribution</b>					
Local	10 (22%)	5 (23%)	2 (17%)	3 (38%)	0 (0%)
Regional	19 (41%)	13 (59%)	5 (42%)	0 (0%)	1 (25%)
State	11 (24%)	4 (18%)	3 (25%)	3 (38%)	1 (25%)
National	6 (13%)	0 (0%)	2 (17%)	2 (25%)	2 (50%)
<b>Evaluation</b>	25 (53%)	7 (32%)	7 (54%)	7 (88%)	4 (100%)
Quit - self-reported	14 (30%)	7 (32%)	4 (31%)	1 (13%)	2 (50%)

<i>Quit status validated</i>	6 (13%)	3 (14%)	0	1 (13%)	2 (50%)
<i>Smoke-free behaviours</i>	12 (48%)	6 (27%)	3 (23%)	2 (25%)	1 (25%)
<i>Knowledge/Attitudes</i>	16 (34%)	6 (27%)	5 (42%)	4 (50%)	1 (25%)

## Supplementary Box: Variables in the questionnaire and recoding

Legend: AMS = Aboriginal Medical Service; GO = government organisation; NGO = non-government organisation; Y = yes; N= no; RA = remoteness area classification; AHW – Aboriginal Health Worker. ASGC-RA =Australian Standard Geographical Classifications - Remoteness Area. \* Indicates findings not reported

### Demographic information about participants and their organisation

- Location of organisation – coded into urban (RA1), regional (RA2-3), or remote (RA4-5), using ASGC-RA
- Role of person in organisation (6 response options e.g. AHW, administrative, researcher)\*
- Organisation type (AMS, hospital/health service, University, research organisation, NGO, GO, other – recoded into AMS, GO, NGO, University)
- Orientation to general population or Aboriginal and Torres Strait Islander Peoples

### General Information

- Overview of program – open ended
- Adapted or newly made messages (Y/N)\*
- Messages as stand alone or part of a program (Y/N)\*
- Target groups (youth, pregnant, elders, adult men, adult women, other)
- Different message styles for target groups (Y/N)
- Degree messages developed by a bottom-up vs. top-down approach - scale 1 (mostly bottom-up) to 10 (mostly top-down)
- Degree messages aimed at individuals vs. community - scale 1 (mostly individual) to 10 (mostly community)
- Theoretical framework (Y/N – describe if Y)
- Type of messages (7 response options e.g. educational, threat, positive benefit)

### Formative phases

- Community consultation (Y/N)
- How information from the community was gathered (10 response options e.g. community groups, surveys)
- Topics explored with community (13 response options e.g. knowledge, threat from smoking, barriers to quit)

### Message Development Phase

- Cultural challenges (Y/N - describe if Y)
- Input sources for development (7 response options e.g. community, survey results, expert advice)
- Personnel used for advice (10 response options e.g. AHWs, other health professionals, health promotion advisors, Indigenous artists) – recoded into Indigenous advisors (Y/N)
- Message features (16 response options e.g. Indigenous theme, health related statistics, effect of tobacco on family) - recoded into number of superficial and deep structures (see text)
- Recommended actions (Y/N)
- Recommended actions if Y (7 response options e.g. quit smoking, see GP, ring Quitline) recoded into referral options <2 or ≥2

### Pre-test phase

- Pre-tests with community (Y/N)
- How pretested (8 response options e.g. informal discussion, reference group, survey)
- Unexpected outcomes (Y/N - describe if Y)

### Resource Development/Distribution

- Developed resources (Y/N)
- Community consulted about resources (Y/N)\*
- Resources developed (15 response options e.g. posters, DVD, T-shirts) recoded into print media, digital media, TV ads, merchandise, resources for quit groups, training, and other
- Area of distribution (5 response options e.g. local, regional)

### Evaluation of messages/resources

- Messages/resources tested or evaluated (Y/N). ‘Evaluations planned’ were formulated from notes of discussion about evaluation when N was indicated
- What tested (8 response options e.g. knowledge, quit rates, smoke-free spaces)

# Questionnaire

Qualtrics Survey Software

<https://scuau.qualtrics.com/ControlPanel/PopUp.php?PopTy...>

## Default Question Block

### Information and Consent Form

#### Introduction

This study collects information about what anti-smoking messages have been developed by organisations for Aboriginal and Torres Strait Islander tobacco control.

#### Aims

Dr Gillian Gould is conducting the study, and it will contribute to her PhD at James Cook University. She intends to produce a set of guidelines to inform how anti-smoking messages can be developed and used for Aboriginal and Torres Strait Islander people.

#### Procedures

You will be asked to complete a survey via a telephone interview or on-line. The interview or survey should take approximately 30 minutes. Some questions will require knowledge of how your organisation has developed anti-smoking messages, or resources; you will be able to view the questions prior to the interview/survey so you can have the answers to hand. You can ask other people in your organisation for the information and get approval from a manager if required.

#### Participation

This study is voluntary and you can stop taking part at any time without explanation or prejudice. You may withdraw any unprocessed data from the study. Audio recording of the phone calls is preferred. You will be asked at the beginning of the phone call for your consent for the survey, and if it can be recorded. You may accept or refuse recording. All audio recordings will be destroyed at the end of the study.

#### Risks/discomforts

The questions are not personal and should not cause distress. If you do not have the information, it is OK to tick the boxes that indicate, "I don't know". If you feel upset in any way, advise the researcher if on the phone, or stop the on-line survey, and either save the form to come back to it later or discontinue the survey.

#### Benefits

It is hoped through your participation that more will be known about how anti-smoking messages are developed and used for Aboriginal and Torres Strait Islander people. If you know of others that might be interested in this study, please give them our contact details so they may volunteer for the study.

#### Confidentiality

Your responses and contact details will be strictly confidential. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until the primary researcher has deleted it. The combined unidentified data will be used for a report that will be distributed to participating organisations, and in research publications and conference papers. You will not be identified in any way in publications. If the researcher wishes to showcase any of the resources your organisation has either produced or researched she will get back to you or your organisation to obtain written permission.

#### Questions about the research

If you have any questions about the study, please contact Dr Gillian Gould, School of Public Health and Tropical Medicine, James Cook University, Mobile: 0403615563 (preferred contact), Email: [gillian.gould1@my.jcu.edu.au](mailto:gillian.gould1@my.jcu.edu.au)

I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

- ☐ Yes  
☐ No

Name

Address

**Phone(s)**

**Email**

**Employer**

**Job Title**

**Supervisor**

**May I contact you**

- ☐ Yes  
☐ No

**Best time to call?**

**What is or are the name(s) of your anti-tobacco projects?**

**Which best describes your role?**

- |   |   |
|---|---|
| <input type="checkbox"/> Indigenous Health Worker | <input type="checkbox"/> Researcher                                 |
| <input type="checkbox"/> Administrative           | <input type="checkbox"/> Other Health Professional                  |
| <input type="checkbox"/> Academic                 | <input type="checkbox"/> Other, please specify <input type="text"/> |

**Which best describes your organisation?**

- |   |  |
|---|--|
| <input type="radio"/> Aboriginal and Torres Strait Islander Medical Service/<br>Aboriginal Community Controlled Health Organisation | <input type="radio"/> Divisional of GP or Medicare Local         |
| <input type="radio"/> Public or Hospital Health Service   | <input type="radio"/> Non-Government Organisation                |
| <input type="radio"/> University/Tertiary Institute   | <input type="radio"/> Government Organisation                    |
| <input type="radio"/> Research Organisation   | <input type="radio"/> Other, please specify <input type="text"/> |

**Is your organisation...**

- ☐ Only for Aboriginal and/or Torres Strait Islander people  
☐ Mainly for Aboriginal and/or Torres Strait Islander people  
☐ For the general population

**Has your organisation developed anti-tobacco messages for Aboriginal and Torres Strait Islander people?**

- ☐ Yes  
☐ No



Some general questions.

Were the anti-tobacco messages adapted from existing anti-tobacco messages?

☐ Yes

☐ No

Were the messages part of a program or were they a stand-alone activity?

☐ Part of a program

☐ Stand-alone activity

Please provide more information.

What was the target audience for your messages?

☐ Youth

☐ Community elders

☐ Pregnant Women

☐ Don't know

☐ Adult women

Other please provide more information

☐ Adult men

If you have marked more than one, did you develop different messages or message styles for the different target audiences?

☐ Yes

☐ No

☐ Don't know

Please rate what degree the messages were aimed at individuals versus the whole community?

Mostly individual

Mostly community

Please rate what degree the messages were developed by bottom-up approach (negotiated with community) versus a top-down approach (driven by authorities).

Mostly Bottom-up

Mostly Top-down

Was a theoretical framework used to help support the way the messages were put together?

☐ Yes, please state or describe the framework used

☐ No

☐ Don't know

What were the types of anti-tobacco messages developed?

☐ Educational message (e.g. informs about health issues in a non-emotional manner)

☐ Threat or fear appeal (e.g. uses negative emotions to persuade people to quit because of harms of smoking)

☐ Positive benefit appeal (e.g. shows the positive side - you will live a healthier life if you quit)

☐ Heuristic appeal (e.g. creates a mood, shows non-smokers living more carefree)

☐ Advocacy appeal (e.g promotes smoke-free environments, equality issues)

☐ Don't know

☐ Other, please state

Formative Stage of Message Development

**Did your organisation find out information from your community to help develop the right messages for your target audience?**

☐ Yes, please describe

☐ No

☐ Don't know

**Which best describes how this information was gathered (choose more than one if applicable).**

☐ Community group

☐ Men only community group

☐ Women only community group

☐ Questionnaire/Survey

☐ Steering committee/reference group

☐ Informal discussion groups

☐ Word-of-mouth feedback

☐ Other please state

☐ No gathering of information

☐ Don't know

**Which of any of the following did you explore (choose as many as apply):**

☐ Knowledge about health risks of smoking

☐ Threat of smoking to the target audience

☐ Belief that following the messages or advice would prevent the risks from smoking

☐ Beliefs/attitudes/myths about smoking

☐ Community norms/opinions about smoking

☐ How well the target audience relates to messages about smoking

☐ Ability of the target audience to response to the message

☐ Barriers to the target audience being able to do the recommended action (e.g. quit smoking)

☐ Who the target group wanted to hear the anti-smoking message from (e.g. health professional/ expert/celebrity /sportsperson)

☐ Preferences for an Indigenous theme or message

☐ Preferred message form (for example DVD/print/brochure/poster)

☐ Preferred channel for the message (for example TV/radio/newspaper etc)

☐ Other, please state

**Message Development Phase****Did you encounter any cultural challenges in developing the messages or any artwork associated with them?**

☐ Yes, please describe

☐ No

☐ Don't know

**Please indicate which of the following your organisation applied to your message development phase**

- ☐ Input from community
- ☐ Results from community group/surveys
- ☐ Expert advice or literature review
- ☐ Created from other campaigns with cultural adaptation
- ☐ Created from other campaigns without cultural adaptation
- ☐ Message developed without prior consultation
- ☐ Other, please state

**Please indicate if advice from any of the following personnel were used in the message development (select all that apply)**

- ☐ Aboriginal and/or Torres Strait Islander Health Worker or Indigenous Health professional
- ☐ Aboriginal and/or Torres Strait Islander community elder
- ☐ Aboriginal and/or Torres Strait Islander community representative
- ☐ Aboriginal and/or Torres Strait Islander artist
- ☐ Doctor or GP
- ☐ Tobacco or health promotion expert
- ☐ Media consultant
- ☐ Non-Indigenous artist
- ☐ Don't know
- ☐ Other, please state

**Please explain how this process occurred.****Which of the following did you incorporate when you developed the messages? Select as many as apply.**

- |  |   |
|--|---|
| <input type="checkbox"/> General features to make message more accessible e.g. simplicity in presentation; large, legible print                        | <input type="checkbox"/> Local language or "Indigenous English" or "slang" to communicate messages  |
| <input type="checkbox"/> Reading age level appropriate to the target group, e.g. simple, short, familiar words   | <input type="checkbox"/> Translated existing pamphlets into local language  |
| <input type="checkbox"/> Clear unambiguous, advice in the message  | <input type="checkbox"/> Developed new messages/ resources using local language   |
| <input type="checkbox"/> Indigenous theme (portraying Indigenous people/Indigenous images or art/Indigenous issues)                                    | <input type="checkbox"/> Local community elders or key community people included in development of the messages                               |
| <input type="checkbox"/> Colours, images and pictures that identified with your target group   | <input type="checkbox"/> Storytelling or testimonials from Indigenous people  |
| <input type="checkbox"/> Culturally appropriate images, language and art   | <input type="checkbox"/> Positive role models   |
| <input type="checkbox"/> Title or headline stated the message was for Indigenous people  | <input type="checkbox"/> Linked health issue to holistic wellbeing including Aboriginal or Torres Strait Islander culture, beliefs and family |
| <input type="checkbox"/> Health-related statistics or information relevant to the target group, e.g. rates of smoking or 'closing the gap' information | <input type="checkbox"/> Used a generic theme (i.e. non-Indigenous people/images /issues)   |
| <input type="checkbox"/> Messages included the effect of tobacco on the family or community  | <input type="checkbox"/> Not known  |

**Did the message/s recommend people take action or change their behaviour?**

- ☐ Yes
- ☐ No
- ☐ Don't know

**What were the recommended actions? (select all that apply)**

- ☐ Quit smoking
- ☐ See Aboriginal Medical Service or Indigenous Health Worker
- ☐ See GP
- ☐ See community health service such as Alcohol, Tobacco and Other Drugs Service
- ☐ Create smoke-free environments (such as home and car)
- ☐ Ring the Quitline
- ☐ Other, please state

**Pre-test of messages****Were the messages tested or tried out with some community members before making them widely available?**

- ☐ Yes
- ☐ No
- ☐ Don't know

**How did you test or try them out? (select all that apply)**

- ☐ Informal discussions or asking people what they thought
- ☐ Steering committee/reference group feedback
- ☐ Questionnaire/ survey
- ☐ Community - men's group
- ☐ Community - women's group
- ☐ Community group - mixed
- ☐ Don't know
- ☐ Other, please state

**Were there any unexpected outcomes from the use of the messages or associated art?**

- ☐ Yes, please describe
- ☐ No
- ☐ Don't know

**Resource Development & Distribution****Did your organisation develop resources with these messages?**

- ☐ Yes
- ☐ No
- ☐ Don't know

**Did you ask your community group the type of resources they would like to promote the messages?**

- ☐ Yes
- ☐ No
- ☐ Don't know

**What resources did your organisation develop? (tick as many as apply)**

- |  |   |
|--|---|
| <input type="checkbox"/> Posters   | <input type="checkbox"/> Stickers/Magnets                           |
| <input type="checkbox"/> Pamphlets/Booklets                                      | <input type="checkbox"/> T-shirts or other apparel                  |
| <input type="checkbox"/> Resources for Quit Groups                               | <input type="checkbox"/> Website                                    |
| <input type="checkbox"/> Resources for training courses for health professionals | <input type="checkbox"/> Social network (e.g. Facebook)             |
| <input type="checkbox"/> CD- Rom   | <input type="checkbox"/> Apps (e.g. for smart phone/i-phone/i-pad)  |
| <input type="checkbox"/> DVD   | <input type="checkbox"/> Hit-net                                    |
| <input type="checkbox"/> TV advertisement  | <input type="checkbox"/> Other, please specify <input type="text"/> |
| <input type="checkbox"/> Radio Advertisement                                     |   |

**Over what area where your resources distributed?**

- ☐ Locally only
- ☐ Regionally
- ☐ State-wide
- ☐ Nationally
- ☐ Don't know

**Would your organisation be able to provide a sample of the resources that were used with the health messages?**

- ☐ Yes
- ☐ No
- ☐ Don't know

**Evaluation of Messages or Resources****Did your organisation evaluate or test the impact of your messages/resources?  
(e.g. test for changes in attitudes or smoking behaviour as the result of the message/resource)**

- ☐ Yes
- ☐ No
- ☐ Don't know

**What was tested? (tick all that apply)**

- ☐ Knowledge about health risks of smoking
- ☐ Beliefs and attitudes towards smoking
- ☐ Number of cigarettes smoked
- ☐ Self-reported quit rate
- ☐ Quit rate validated by biochemical test (e.g. carbon monoxide readings or cotinine levels)
- ☐ Smoke-free behaviors (e.g. smoking outdoors /not smoking in car)
- ☐ Other, please state
- ☐ Don't know

**Would your organisation be able to provide any document about your program results?  
(e.g. written or published report or PowerPoint presentation)**

- ☐ Yes
- ☐ Maybe
- ☐ No

**If yes, and the results have been published or are available on a website, please provide  
reference, publication details or link in the box below:**

If you wish to upload any files such as reports, results or samples of your messages/resources, you may do so here.

Browse...

If the results are not publically available, can we please contact you to get a copy of the results?

- ☐ Yes
- ☐ No